ganizations (PPOs); (*b*) changes in federal programs' reimbursement methodologies and regulation, including cost containment initiatives reflected in limits on reimbursement, physician fee freezes, and diagnosis related groups (DRGs); (*c*) an historical overdependence of the academic medical center on indigent patients, the costs of whom are difficult to shift in the new environment to paying patients; and (*d*) changing practice patterns, including decreasing hospitalization rates and decreasing lengths of stay.

Although many respondents simply voiced these threats as issues, others noted specific actions needed to compete successfully in the new practice environment, both in terms of changes in faculty attitudes and behavior and changes in modes of practice. The former category included the need for faculty members to compete much more aggressively in attracting patients to the practice and the hospital by improving relations with patients and referring physicians and by marketing services. Also voiced was the need for faculty members to practice more efficiently and to pay greater attention to cost containment. The hospital directors made these suggestions more frequently than any other group.

The changes in practice modes seen by the respondents as necessary to compete successfully in the new environment fell into several related areas pertaining to the degree and nature of involvement in prepaid and brokered systems of care and the degree of involvement in primary care and in ambulatory care. These changes were often discussed in the context of two overriding concerns: (*a*) the current organization of faculty practices and (*b*) the effects of changing modes of practice on student and resident training.

Comments on the issues surrounding HMO/PPO development focused on whether or not the school and/or the hospital should develop its own HMO or PPO network (a small number reportedly were moving in this direction) or become part of a referral system of existing networks. Although academic medical centers have traditionally viewed their special role as providing secondary and tertiary level services, the new practice environment has raised the question of whether more involvement in primary care is required to maintain referral systems. Comments ranged from the description of specific initiatives—for example, the development of satellite clinics in the community both adjacent to the medical center and in surrounding suburban areas—to expressions of support for retaining and improving the academic medical center's niche as an unique tertiary care site offering the best of new research and technology. The shift in medical care from inpatient to outpatient settings requires the academic medical center to decide whether or not to become more involved in ambulatory care. Those commenting on this issue fully agreed on the need to develop and enhance ambulatory care delivery as a way of adapting to changing practice patterns, although the low financial return of these operations, the excessive time required of physicians, and other inefficiencies were noted as potential sources of difficulties. Concerns about the effect of these changes on the education of medical students and residents centered particularly on the problems associated with teaching in the ambulatory care setting.

A relatively frequent theme in the responses was the admission that faculty practice organizations are not structured to provide the integrated system of care necessary to compete in the new practice environment. This issue is closely tied to one under the heading of practice plan centralization (discussed below) but reflects more than simply the membership

and income distribution policies mandated by centrally organized plans. To compete, the respondents believed that faculty practices must be reorganized into "true group practices," with coordinated management of patients, internal referral systems, and mechanisms to negotiate as a group with HMOs and PPOs for brokered care.

Increased "town-gown" tensions appear to be a consequence of the academic medical center's response to the new practice environment, according to some respondents. The intrusion of the medical school into service areas formerly the domain of community physicians was seen as interfering with traditional consultant-referral relationships between the medical center and the community. At a few schools (chiefly the community-based schools) the increased tensions with community physicians, many of whom were volunteer faculty members, had resulted in threats by the latter to withdraw their teaching support, a condition one respondent described as "teachus interruptus."

A small number of comments had to do with the constraints imposed by hospital facilities in responding to the new practice environment. These comments were primarily related to the adequacy of the hospital both in the numbers of beds available and in the restricted nature of services provided.

A final set of issues dealt with the effects of the new practice environment on quality of care; these included the growing emphasis on cost reflected in the DRG reimbursement system, other cost containment efforts, and the competition for patients.

GOVERNANCE AND CONTROL

One set of issues involving governance and control of clinical practice involved forming practice plans and establishing or modifying membership requirements. A few schools were in the process of developing organized structures for faculty practice because they were either new or had had a tradition of allowing independent practices. Other schools had departments or faculty members which, for a variety of reasons, had not been incorporated into a practice plan structure, a situation viewed as requiring change. Membership issues included the question of whether or not volunteer faculty members should become part of the plan and contribute to the institutional development fund. The surgery chairmen, who expressed problems in the loss of full-time faculty members to the volunteer ranks, raised this as an issue more frequently than the other groups.

The degree of plan centralization was another topic in the governance and control area. Those expressing the need to increase centralization of control argued that current departmental or group autonomy inhibited a coherent and effective response to problems brought on by the new competitive and reimbursement environment and that opportunities and institutional interests were lost amid faculty pursuits of individual or departmental advantage. Those emphasizing a need for greater decentralization of control said that centralized control had dampened individual or departmental initiative and that decision-making about practice matters were best vested in those working closest to the problems. Those vice-presidents, deans, and hospital directors who offered an opinion on plan centralization were unanimously in support of greater centralization. The medicine, surgery, and "other" department chairmen who commented tended to be divided in their opinions.

The relationship between the practice plan and the medical school or the university was another area of interest ex-

pressed by the respondents. The comments focused on the need for greater separation from university control and concerns about a movement away from medical school control. Several noted the growing resentment of faculty members toward the prospect of increased university control and fears that plan funds might be appropriated by the university for nonmedical school purposes. The legal organization of the plan in relation to the medical school or university was also cited as an issue. Separate incorporation was recommended by respondents from each group, but primarily as a way to avoid university or state control. Informal medical school control was not an issue among the respondents. On the contrary, it was generally well supported. In fact, the fear that the medical school was losing control of the practice plan and practice activities was the chief point of two other sets of comments. The first dealt with fears that the practice plan was becoming a third force beyond the medical school and the hospital, a force that, for example, was developing entrepreneurial activities not in accord with academic interests. The second set of comments emphasized that the practice entities as currently constituted were not adequately accountable financially to the medical school.

State control was a relatively infrequent concern of the respondents. However, the vehemence of the few responses on this issue equaled that of responses on any issue. The respondents raised two general issues concerning state control. One was that the current level of state regulations and bureaucracy imposed on the medical school and the faculty was limiting the medical school's ability to shape practice plans in a way consonant with the missions of teaching, research, and patient care. The second related to concerns that the state, by offsetting its contribution to the medical school by the amount of practice earnings, diminished initiative and produced fears that it might appropriate practice funds to a greater degree in the future for nonacademic purposes.

A few chairmen and hospital directors commented on the relationship between the university and the hospital. These invariably focused on the need for greater separation of the two institutions. The bureaucratic procedures of the university were seen as impeding the hospital's efforts to be responsive to the changing practice environment and to improve services.

Finally, the relationship between the faculty or medical school and the hospital was the focus of issues raised often by hospital directors, by whom it was ranked second in frequency of mention among all issues. The issues on this relationship could be grouped into four general subsets. The first covered problems in determining appropriate cost-sharing, in terms of support of departments and faculty members, purchase of high technology equipment, losses incurred in providing indigent care, and development of ambulatory care facilities and other joint clinical enterprises. The second set of issues pertained to control. Some faculty members noted instances where the affiliation agreement gave, in their view, too much control to the hospital and expressed a desire for more input into hospital administration. The hospital directors, on the other hand, saw a need to have more participation in faculty recruitment and appointments. The third set of issues focused on the development of cooperative practice relationships, the potential and growing competition between the faculty practice plan and the hospital, and the need for more joint faculty-hospital ventures. The hospital directors felt that faculty members needed to

become better "citizens" of the hospital and to have increased responsibility to it. The fourth but less frequently mentioned problem area in faculty-hospital relationships were issues related to access privileges (that is, closed versus open staff) and current policies favoring full-time faculty members in the use of hospital resources.

To a specific question addressed only to hospital directors, 20 of the 52 (38 percent) responding reported that they were participating in joint ventures with the faculty practice plan, while another four (8 percent) stated that such ventures were currently being discussed. The joint ventures include HMO and PPO development, joint negotiations on HMO and PPO contracts, diagnostic imaging centers, ambulatory care facilities (including primary care satellite offices and outpatient surgery centers), home health care programs, joint marketing programs, shared purchasing arrangements, and information and billing-collection systems.

INCOME DISTRIBUTION

Issues concerning the distribution of practice income primarily focused on the disparity among faculty members in their potential for generating income—between basic science and clinical departments, between procedurally oriented and cognitively oriented clinical departments, and among specialists within departments. The chairmen of medicine, pediatrics, and "other" departments commented on this issue more frequently than did the other groups. A result of the disparity, produced by historical reimbursement policies, is that some departments are subsidized by the earnings of others—a situation that produces tensions. Those stating specific views were divided between advocates for greater sharing of the income and those who resented the current cross-subsidization. Medicine and pediatrics chairmen advocated the former position, while surgery chairmen supported the latter. A closely related set of issues dealt with the level of "taxation" instituted by the dean and department chairmen on faculty practice to support educational programs. These comments were also divided between those who felt the level was insufficient and those who felt it was too high. Medicine and pediatrics chairmen supported larger contributions, while surgery chairmen were divided.

Another aspect of the distribution formula mentioned was the way practice plan costs and expenses were distributed among the departments and across institutions and organizations within the medical center. Some respondents suggested there was a lack of equity across departments in the formula; others reported that the university was inadequately reimbursed by the practice plan for the use of facilities. Two other infrequently mentioned issues dealt with the limits on practice income and the fringe benefits afforded by the plan. Some respondents felt that the limitations on income were set too low at their institution and needed to be raised. Others argued for a more restrictive policy. A frequent comment with regard to fringe benefits was the need to alter them to take advantage of tax-deferred income plans.

OPERATIONS

The final set of issues concerned operational matters specific to different settings. Comments were made that financial and administrative management support of faculty practice needed to be improved and overhead expenses reduced to make the practice plan more competitive with community physicians. Practice facilities were also cited as too costly, inadequate, underdeveloped, lacking geo-

graphic consolidation for effective practice, or providing an unattractive environment for patients. Billing and collection issues focused on centralized versus decentralized billing systems and the need for improved billing and collection procedures. Finally, the increasing costs of malpractice insurance were noted as an issue, primarily by respondents from schools in New York state.

Conclusion

The response rate of the deans (73 percent), the number of issues identified by the hospital directors, and the intensity of the views expressed by the department chairmen in their comments all illustrate the significance of faculty clinical practice to the academic medical center leadership. It is clear that the increasing dependence medical schools have on practice income is creating fears that the academic mission is being diverted. It is also clear that the rules of medical practice and health care delivery are changing rapidly in a way that, without vigorous responses on the part of academic medical centers to maintain their patient bases and practice income, the academic mission may not be served.

A search appears to be underway for institutional strategies, policies, and organizational structures that will permit effective functioning in the new environment. As indicated by survey responses, preserving a balance among teaching, research, and patient care missions is of primary concern and requires changes in the conception of faculty roles, responsibilities, and reward systems in the views of many respondents. The number of comments on threats to the patient base and service income from competition and new reimbursement methodologies is a hopeful note in that these potential problems are at least being recognized. It is clear—at least to some of the respondents—that several changes in modes of practice are needed. The first is to develop faculty clinical practices into a "true group practice," a multidisciplinary practice organization characterized by coordinated patient management, internal referral systems, and mechanisms to negotiate as a group with HMOs and PPOs for brokered care. The second change, emphasized by hospital directors, calls for faculties and hospitals to develop more collaborative strategies in health care delivery. Both changes respond to purchasers' demands for coordinated rather than autonomous systems of care. Buyers are no longer interested in seeking separately physician services or hospital services but rather the guaranteed availability of necessary medical services at a predetermined fixed price.

There is a fear that, in a scramble for personal advantage in the new practice environment, the goals of the academic medical center and the unique missions of its member institutions may be diverted. Effecting these changes in the academic medical center may require more than ever before that individuals, groups, and institutions within the academic medical center transcend parochial interests. Some autonomy may need to be sacrificed in order that the enterprise as a whole survive and flourish.

In response to the survey results, the AAMC formed an ad hoc Committee on Faculty Practice in June 1985, with representation from vice-presidents, deans, teaching hospital directors, department chairmen, faculty representatives, and practice plan administrators. The issues most frequently identified in the survey constitute the agenda for the committee's discussions. The committee is charged with identifying projects and programs for the AAMC to develop that will assist its member institutions in responding to the issues raised in the survey.

Clinical Competencies Of Graduating Medical Students

Yvette M. Martin, Dona L. Harris, Ph.D., and Miki B. Karg

Abstract—In a survey conducted by the authors, the goals of medical school curricula regarding the clinical competencies of graduating students were explored. Inventories listing 83 clinical skills were sent to 123 U.S. medical schools and to 462 volunteer clinical faculty members at the University of Utah School of Medicine. The responding medical schools singled out 43 clinical skills as definite goals of their curricula, and the practicing physicians identified 49 clinical skills in which graduating medical students should be competent. The study provided an easy mechanism to compare the clinical expectations of practicing physicians and of medical schools regarding medical students.

Medical education is usually considered a continuum of several overlapping processes. The first part involves mastery of the academic foundation (the science); the second involves mastery of the mechanics (the skills); and the final process involves the integration of the first two parts and the mastery of the "art" of practicing medicine. Much time and research have been devoted to the first and third portions of medical education; however, an extensive literature search by the authors provided little information on the actual mechanics of practicing medicine in terms of what a graduate should be able to do following four years of medical school.

Since graduating medical students will enter residency programs for specialty training, medical schools have the task of providing a general medical education, a basis on which the graduates can build. The report of the Project Panel on the General Professional Education of the Physician (GPEP) and College Preparation for Medicine addressed this issue when it stated that "all physicians, regardless of specialty, require a common foundation of knowledge, skills, values, and attitudes" (1).

The problems associated with evaluating clinical skills have been studied (2) and medical educators' expectations for medical students vary, depending upon the level of education of the students. Obviously, a medical student is not expected to be competent in all areas in which competency is expected of residents, and the level of competency of first-year residents is not equal to that of senior residents.

Although medical schools are designed to begin the medical education process,

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the end product of that process has never been critically defined. Because of the lack of specific information on the skills and competencies of medical school graduates, the authors undertook a study to address the following questions: What expectations do medical schools have of their graduating students in terms of skills and competencies? What expectations do practicing physicians have of graduating medical students in terms of their clinical skills and competencies?

Methods

A list of 83 clinical skills was sent by the authors in 1983 to 123 U.S. medical schools and a sample of practicing primary care physicians. The questionnaire used was adapted from one developed in 1975 by the Primary Care Preceptorship Advisory Committee of the University of Utah School of Medicine and is currently used to measure clinical skills of students following preceptorships (3). The advisory committee had reviewed a list of basic clinical and practical skills submitted by medical school faculty members and voluntary preceptors. Committee members reviewed these skills to determine whether they were realistic and agreed on 83 clinical skills. The committee membership represented the areas of family practice, internal medicine, surgery, and pediatrics. The committee also included preceptors and medical students.

The survey asked respondents to rank each clinical skill on a scale from 1 to 5. A rank of 5 indicated that all graduating medical students should be able to perform that skill independently, and a 1 indicated that a graduate should not be expected to perform that skill. The respondent from each medical school was asked to circle the number that best described the goals of his medical school curriculum in terms of student competency. The questionnaire was sent to the dean of the medical school with the request that the survey be forwarded to the appropriate person(s) (for example, director of medical education and/or academic deans). Volunteer faculty members from the departments of family and community medicine, pediatrics, and internal medicine at the University of Utah School of Medicine were asked to indicate their personal expectations of the skill levels for graduating medical students. The volunteer clinical faculty members were selected because they were full-time practicing physicians who, as preceptors, trained clinical students in their private offices.

The median and mean scores were computed for each clinical skill, with the responses of the medical schools and the practicing physicians being considered separately. A mean score of 3.75 or greater was considered to be a strong indication that graduating students should be competent in that particular skill and is referred to as a positive reply. A mean score of 2.25 or less was considered to be a strong indication that graduating students were not expected to be competent in this particular skill and was considered a negative reply. The mean scores that fell between 2.25 and 3.75 were not considered strong indications for or against that particular skill and are referred to as neutral replies. The data reported are based on the mean scores.

Responses were received from 74 medical schools for a response rate of 60 percent. Inventories were sent to 462 volunteer clinical faculty members, and responses were received from 234 for a response rate of 51 percent.

The Wilcoxon rank sum test was used to test for differences between the responses of the physicians and the medical

schools for each clinical skill. Significance was determined at the $p = .01$ level.

The clinical skills were grouped into seven major categories: general psychosocial, problem management, general physical (adult), general physical (pediatrics), general physical (surgery), general physical (obstetrics/gynecology), and office management.

Results

From the medical schools, positive scores were obtained on 43 of the 83 skills inventoried. Only 16 of the 83 skills were not considered to be goals, and 24 of the 83 skills were scored as neutral replies by the schools. Examples of all three categories are shown in Table 1.*

The responses from the practicing physicians were similar. Practicing physicians expected a graduating medical student to be competent in 49 of the 83 clinical skills. Negative responses were scored on nine of the 83 skills, and 25 clinical skills were neutral.

Disagreements on positive, negative, and neutral responses were found between the medical school respondents and the physicians on 15 of the 83 clinical skills. The differences in scores were statistically significant using the Wilcoxon rank sum test ($p = .01$) in nine clinical skills. These skills were: billing patients and insurance companies; managing a breech delivery; staffing a practice; applying obstetrical forceps; performing a dilatation and curetage, an episiotomy, an infant circumcision, and a sigmoidoscopic examination; and deciding whether a 10-year-old needs a tonsillectomy and adenoidectomy. On none of the 15 skills was one response positive and the other response negative; one response was always neutral, and the other response was either positive or negative. For example, the clinical skill of performing a sigmoidoscopic examination received a positive reply (mean = 3.765) from the physicians and a neutral reply (mean = 2.900) from the medical schools.

The rankings of the clinical skills as positive, negative, or neutral were consistent between the preceptor and medical school groups for 68 skills. Of these 68 skills, 42 received positive responses, nine received negative responses, and 17 received neutral responses. Neither group of respondents believed students should be competent in many of the skills in the category of general physical skills (surgery), and only five of 19 such skills received positive responses. Eleven of the 17 skills that were scored as neutral were found in two categories, general physical skills (surgery) and office management. It appears that both groups believed surgery should not be an area of major emphasis at the undergraduate level. In fact, seven of the nine skills receiving negative responses were in surgery.

Two clinical skills were completely agreed on by the medical schools (mean = 5.00, standard deviation = 0.000): taking a history and performing a complete physical examination on an adult. The practicing physicians did not completely agree on any given clinical skill, yet these two skills (mean = 4.9) were among the six clinical skills with the smallest standard deviation among the physicians' responses. The other four skills were performing a rectal examination and a complete breast examination and taking a gonococcus culture and a Pap smear (all with a mean of 4.8 or 4.9). The other skills with the smallest standard deviation from the medical schools' responses were: performing hypnosis (mean = 1.2), per-

* A complete list of the clinical skills inventoried and the mean response received from medical schools and physicians can be obtained from the second author.

TABLE 1

Mean Ratings of Selected Clinical Skills by 74 U.S. Medical School Respondents and 234 University of Utah School of Medicine Preceptors, 1983

Skill	Rating*	
	Schools	Preceptors
General psychosocial		
Take a history	5.000	4.958
Perform hypnosis	1.171	1.660
Counsel mother with enuretic child	3.714	3.651
Counsel preoperative patient	4.420	4.277
General physical (adult)		
Perform adult examination	5.000	4.958
Perform rectal examination	4.986	4.949
Perform sigmoidoscopic examination	2.900	3.765
Perform cardiopulmonary resuscitation	4.871	4.812
Perform thoracentesis	3.186	3.610
Problem management		
Interpret electrocardiogram	4.059	3.939
Interpret standard chest X-ray	4.358	4.178
Interpret laboratory results	4.676	4.679
General physical (pediatrics)		
Check hips on newborn	4.735	4.594
Resuscitate a newborn	3.582	3.966
Interpret growth charts	4.618	4.401
Diagnose and manage acute otitis media	4.677	4.671
General physical (surgery)		
Administer general anesthesia	1.783	1.814
Perform endotracheal intubation	3.358	3.435
Reduce simple fracture	2.471	3.123
Interpret acute abdomen	4.271	4.202
Interpret results of paracentesis	4.132	3.981
General physical (obstetrics/gynecology)		
Perform pelvic examination	4.943	4.821
Take Pap smear	4.929	4.896
Perform complete breast examination	4.929	4.854
Perform episiotomy	3.271	3.761
Manage routine delivery	4.129	4.152
Office management		
Schedule appointments	2.441	3.425
Teach patients general health care	4.209	4.514
Know when to refer	4.439	4.616

* Skills rated on a scale of 1 to 5, with 5 = all medical students should perform this skill independently upon graduation and 1 = students are not expected to perform this skill. A skill that received a mean of 3.75 or greater was interpreted as a goal of U.S. medical schools, while a mean of 2.25 or less indicated that this skill was not a goal of U.S. medical schools; any skill with a mean score between 2.25 and 3.75 was considered a neutral response.

forming a sigmoidoscopic examination (mean = 2.9), and performing a complete breast examination and pelvic examination (means = 2.9).

In another study (3), the self-perceived competencies of preceptorship students were compared with those of students who had not participated in a preceptor-

ship. In that study, the preceptorship students generally felt more competent in performing most of the skills. In only two areas, performing hypnosis and performing endotracheal intubation, were the results significantly higher (Wilcoxon rank sum test, $p = .05$) for the nonpreceptorship students. In the present study, both the physicians and the medical schools assigned negative or neutral scores to these two skills.

Discussion

The study reported here addressed the common clinical goals of the nation's medical schools. Although some variation is to be expected from medical school to medical school, a common basic core must exist if the graduates are expected to compete and work with each other. This study also provides an easy mechanism for a medical school to compare its expectations for medical school graduates with those of practicing physicians and of other medical schools.

Medical students are exposed to a vast number of skills and procedures while in school. The research reported here showed that some of these skills and procedures should be mastered while in medical school, because graduates will be expected to perform certain of these clinical skills independently. However, there are also areas that do not need to be mastered, even though a student may have been exposed to them.

Understandably, some uncertainty exists even among medical students concerning their competency upon graduation. This uncertainty could be lessened if the students had a clearer understanding of the clinical expectations of their school, of other medical schools, and of practicing physicians. The GPEP panel dealt with clinical education and made specific recommendations in its final report with regard to improving that experience for medical students (1). It stated: "Medical faculties should specify the clinical knowledge, skills, values, and attitudes that students should develop and acquire during their general professional education." The present study offers a list of core clinical skills that medical schools can justifiably require their students to have on graduation.

Physicians acting as preceptors can also benefit from the findings of the study. A list of minimum clinical expectations can serve as a guide for interactions with medical students. In no way should expectations limit the students' education, because no upper bound is given in the study. It should always be possible for the student to exceed the expectations of physicians and schools yet to have a common point from which the student and the teacher can begin to work.

Further research might explore the expectations of medical students as they approach graduation. Are their expectations regarding what will be expected of them realistic compared with those of practicing physicians and the medical schools? More important, are medical schools conveying to their students the skills they are expected to develop?

Also, the correlation between a student's self-evaluation and his actual competency in clinical areas needs to be established. The difficulty in doing this is due to the absence of any reliable method to test students' competency in performing clinical skills (4). There is some question about validity of a written examination to evaluate a student's ability to perform a procedure.

The authors had difficulty obtaining from medical schools the clinical goals of their curricula. Of concern, therefore, is the possibility that this information is not readily available to faculty members, the

preceptors associated with the medical schools, or to those it affects the most, the medical students.

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COMMUNICATIONS

Changes in Death Education In U.S. Medical Schools During 1975–1985

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Physicians often have not been taught how to ease the psychological distress of the dying (1). Because physicians deal with dying patients as a central aspect of practicing their profession, medical schools should stress communication skills with dying patients. A survey of 1,093 physicians (2) revealed that medical students who completed a course devoted exclusively to relating to dying patients were better able to deal with those patients and their families than medical students who did not take such a course.

Traditionally, medical education has offered only limited assistance to the medical student encountering death for the first time. A possible approach to improving physicians' skills in treating the dying would be courses on the social and psychological aspects of dying in medical school curricula (3). The objective of the research described in this paper was to examine such medical school courses during 1975 to 1985.

Methods and Results

A brief questionnaire was mailed by the author to all medical schools in the United States in 1975 (4), 1980 (5), and 1985 (113, 128, and 126 schools respectively). Two follow-up mailings were sent to those who did not respond. A total of 107, 123, and 113 questionnaires were returned (95, 96, and 90 percent respectively). The information sought through the questionnaire included the type of course on death and dying offered, number of years the course had been offered, percentage of students taking the courses, general format of the courses, professional background of instructor(s), and required readings.

From 1975 to 1985 the number of medical school courses in death education increased slightly. The number of full-term courses increased from 7 in 1975 to 16 in 1980 but dropped to 14 in 1985. The number of occasional lectures and short courses on death and dying, often integrated into other courses, hardly changed over the decade; 80 percent of the schools offered them in 1975 and 1980 and 82 percent in 1985. Medical schools offering no formal death education courses decreased from 14 in 1975 to 10 in 1980 to 6 in 1985.

In the 1985 survey, the average number of years courses had been offered was 8.06, and 74 percent of the schools had introduced death education within the past decade. Little change occurred in the percentage of schools in which at least 50 percent of the students took the death-education offering (71 percent in 1975, 74 percent in 1980, and 75 percent in 1985).

A team approach to teaching death education was used by a majority of medical schools over the decade (59 percent in 1975, 64 percent in 1980, and 62 percent in 1985). Physicians taught the courses less often in 1985 than in 1975, while psychiatrists were more often involved (Table 1). Although theologians, psychologists, and sociologists still taught death and dying, their importance decreased during the decade. Nurses, philosophers, social workers, and attorneys were increasingly involved in teaching the courses.

The most frequent format for teaching death education continued to be a combination of lecture and discussion; the seminar approach was least used. Both journal articles

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TABLE 1

Percentages of U.S. Medical Schools with Death Education Instructors with Nine Types of Professional Background, 1975–1985

Background*	1975 (*N* = 93)	1980 (*N* = 113)	1985 (*N* = 106)
Physician†	85	71	58
Theologian	46	40	31
Psychologist	37	33	25
Sociologist	26	18	14
Psychiatrist	13	55	59
Nurse	8	17	19
Philosopher	5	19	29
Social worker	4	14	23
Attorney	2	10	10

*Other educational areas represented by instructors in 1985 were bioethics, medical history, genetics counseling, literature, mortuary science, public health, and physical therapy.

†Includes all specialists except psychiatrists.

and books were required readings; and films, videotapes, and conferences with terminally ill patients were included in many courses.

Conclusions

During the past decade there has been an increased emphasis on formal death education in U.S. medical schools. Perhaps medical school administrators are recognizing that "on-the-job training" with terminally ill patients is less beneficial for the students and the dying patient than formal death education during medical school. Hopefully this increased emphasis on medical students learning to deal with death and acquiring communication skills for dealing with terminally ill patients and their families will produce better working relations between physicians and dying patients. Helping students face their anxieties about dying and death at the time they are first faced with dying patients would seem to be the appropriate time for death education.

The multidisciplinary approach to death education in U.S. medical schools should reinforce the view of death as a normal aspect of the life cycle. The use of instructors from outside the medical profession seems to reflect a genuine desire by medical educators to consider the dying patients' needs and to handle ethical issues. The inclusion of a humanistic emphasis in death education should help both the dying patients and the student.

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